UNITED STATES PATENT AND TRADEMARK OFFICE

Examiner: Morgan, E. Art Unit: 3723 Docket No. 3430

In re:

Applicant: DEHDE, J.

Serial No.: 10/550,283

Filed: September 22, 2005

DECLARATION OF UNOBVIOUSNESS OF THE INVENTION

June 18, 2008

JÖRG DEHDE, citizen of Germany, whose post office address and residence is Meisenweg 21/1, D-71144 Steinenbronn, Germany, is the inventor of the invention disclosed in the above specified patent application.

I am familiar with the present invention and also familiar with the power tools disclosed in U.S. patent to Kasabian No. 3,840,762 and U.S. patent to Potter 6,296,427.

I hereby declare that the present invention in which the through openings (14) have a conical shape, provide for unobvious and highly advantageous result when compared with the power tools having through openings of a cylindrical shape.

Common coolant duct arrangements have slots to cool an interior of the power tool. The disadvantage of these slots is that the stability of a region where the slots are arranged is weakened. Through an arrangement of openings as defined in the present invention, the cooling of the interior of the power tool is improved and the noise level of the coolant duct arrangement of the power tool is reduced.

In an unobvious and highly advantageous manner, with the use of the conical openings the flow speed is advantageously decreased and thereby the noise level is reduced. The decrease of the flow speed can be attributed to the affect that the cross-section of the conical openings is changing along the linear expansion of the conical openings. The escaping volume flow rate of the coolant duct arrangement expands in the conical openings and thereby the flow speed is decreased. In addition, the expanding volume flow rate of the conical openings causes less turbulence compared to cylindrical openings, which has also a positive effect on the noise reduction of the coolant duct arrangement. Another effect of the reduced turbulence is that less dust is dispersed in the region of the coolant duct arrangement. This has a positive effect on the user-friendliness.

Another advantage of the conical openings is that the cooling effect is raised compared to the duct arrangement with the cylindrical openings, because the surface of the coolant duct arrangement is enlarged by conical openings compared to the cylindrical openings. Furthermore, the enlargement of the surface of the coolant duct arrangement by conical openings has the effect that the volume flow rate can be advantageously raised, whereby the cooling effect will also be raised.

Furthermore, the plate wherein the conical openings are arranged is more flexible compared to a plate with cylindrical openings. Therefore, the plate can advantageously be adjusted to almost every shape of the housing. The angle of the conical openings can especially be changed according to the kind of application area in which the plate in which the conical openings are arranged is used. Furthermore, the angle of the conical openings can also be changed to obtain a special noise level or a special noise spectrum of the coolant duct arrangement, to adjust the conical openings to the noise spectrum of the hand power tool. A hand power tool with low engine performance has a different noise spectrum than a hand power tool with a high engine performance. Therefore, it is advantageous to change the angle of the conical openings of the coolant duct arrangement in such a way that the angle of the conical openings is aligned to the corresponding hand power tool.

It is therefore respectfully submitted that the new features of my invention defined in Claims 1, 7 and 15, in that the through openings 14 have a conical shape, are unobvious and highly advantageous, and should be considered as patentable.

I HEREBY DECLARE AND AFFIRM THAT ALL STATEMENTS made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statement may jeopardize the validity of the above-named application, any patent issuing thereon or any patent to which this Declaration is directed.

Date: 18. Juni 2008

J. Dehde

Joerg Dehde